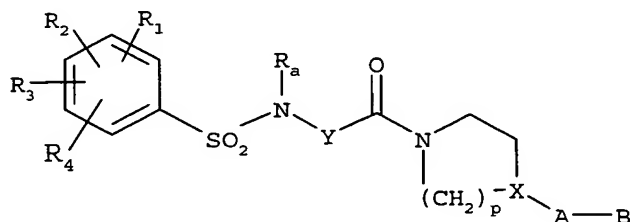


CLAIMS

1. A benzenesulphonamide derivative compound, characterized in that it is selected from the group consisting of:

5 a) compounds of formula:



in which

- 10 - R_1, R_2, R_3, R_4 each independently represent one or more atoms or groups of atoms selected from a hydrogen atom, the halogens, C_1 - C_3 alkyl groups, or C_1 - C_3 alkoxy groups, CF_3 or OCF_3 groups,
- R_a represents a C_1 - C_4 alkyl group,
- Y represents a saturated C_2 - C_5 alkylene group, optionally interrupted by an oxygen atom, an unsaturated C_2 - C_4 alkylene group, or a $-CH_2-CO-NH-CH_2-$ group,
- 15 - X represents CH or a nitrogen atom,
- p represents 2 or 3,
- A represents a single bond, a nitrogen atom optionally substituted with a methyl group, or a straight or branched C_1 - C_5 alkylene group optionally hydroxylated or of which one of the carbon atoms is oxidized into a ketone function, provided that A and X together do not represent a nitrogen atom,
- 20 - B represents a nitrogen-containing heterocycle or an amine group optionally substituted with one or two C_1 - C_4 alkyl groups,
- 25 b) addition salts of the above formula I compounds with an acid.

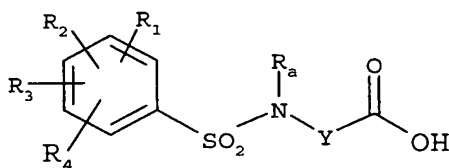
2. A compound according to claim 1, characterized in that Y represents a C₃-C₅ alkylene group interrupted by an oxygen atom, preferably a -CH₂-CH₂-O-CH₂- group.

5

3. A compound according to claim 1 or 2, characterized in that R₂ and R₃ represent a methyl group at position 2,6 on the aromatic ring.

4. A method for preparing a formula I compound as defined in claim 1, and its addition salts, comprising the steps consisting of:

a) allowing an acid of formula:



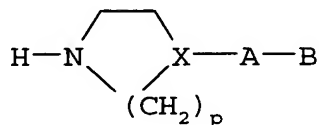
II

15 in which

R₁, R₂, R₃ and R₄ each independently represent a hydrogen or halogen atom, a C₁-C₃ alkyl group, or a C₁-C₃ alkoxy group, CF₃ or OCF₃ group, R_a represents a C₁-C₄ alkyl group,

Y represents a saturated C₂-C₅ alkylene group, optionally interrupted by an oxygen atom, an unsaturated C₂-C₄ alkylene group, or a -CH₂-CO-NH-CH₂- group,

20 to react with a nitrogen-containing heterocycle of formula:



III

25

in which

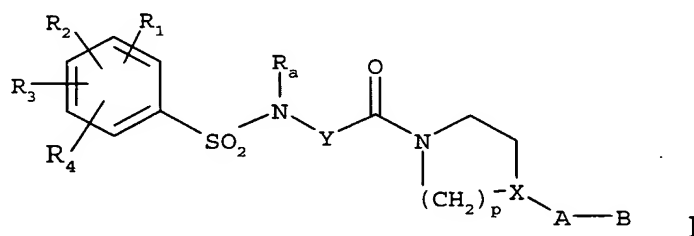
X represents CH or a nitrogen atom,

p represents 2 or 3,

A represents a single bond, a nitrogen atom optionally substituted with a methyl group (if X does not represent a nitrogen atom), or a straight or branched C₁-C₅ alkylene group, optionally hydroxylated or of which one of the carbon atoms is oxidized into a ketone function,

B represents a nitrogen-containing heterocycle or an amine group optionally substituted with one or two C₁-C₄ alkyl groups, on the understanding that, should a non-substituted nitrogen atom be present, this nitrogen atom is protected by an amino-protecting group,

in a solvent, in the presence of activators, at a temperature lying between ambient temperature and the boiling point of the solvent, for approximately 2 to 15 hours, to obtain the amide of formula:



in which R₁, R₂, R₃, R₄, R_a, Y, p, X, A and B maintain the same meaning as in the starting products,

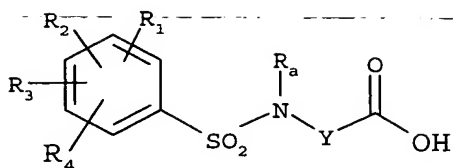
b) if necessary, removing the amino-protecting groups,

c) if necessary, obtaining an addition salt of the formula I compound with a mineral or organic acid.

5. A method for preparing a formula I compound as defined in claim

1, and its addition salts, comprising the steps consisting of:

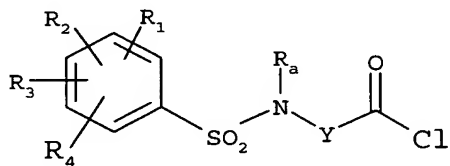
a) allowing an acid of formula:



II

in which

- 5 R_1 , R_2 , R_3 and R_4 each independently represent a hydrogen or halogen atom, a C_1 - C_3 alkyl group, or a C_1 - C_3 alkoxy group, CF_3 or OCF_3 group, R_a represents a C_1 - C_4 alkyl group, Y represents a saturated C_2 - C_5 alkylene group, optionally interrupted by an oxygen atom, an unsaturated C_2 - C_4 alkylene group, or a $-CH_2-CO-NH-CH_2-$ group,
- 10 to react with a chlorination agent, to obtain the acid chloride of formula:

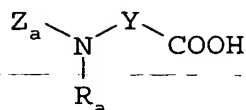


IIa

- 15 in which R_1 , R_2 , R_3 , R_4 , R_a and Y have the same meaning as in the starting compound,
- b) allowing the acid chloride of formula IIa to react with an amine of formula III as defined in claim 4, to obtain the compound of formula I,
- c) if necessary, obtaining an addition salt of the formula I compound
- 20 with a mineral or organic acid.

6. A method for preparing a formula I compound such as defined in claim 1, and its addition salts, comprising the steps consisting of:

- a) allowing an acid compound of formula:



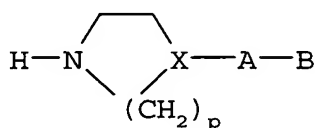
VII

in which R_a represents a $\text{C}_1\text{-C}_4$ alkyl group,

Y represents a saturated $\text{C}_2\text{-C}_5$ alkylene group, optionally interrupted by an

5 oxygen atom, and Z_a represents an amino-protecting group,

to react with a nitrogen-containing heterocycle of formula:



III

10

in which

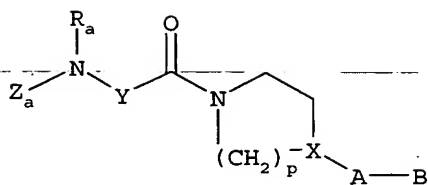
X represents CH or a nitrogen atom,

p represents 2 or 3,

A represents a single bond, a nitrogen atom optionally substituted with a
15 methyl group (if X does not also represent a nitrogen atom) or a straight
or branched $\text{C}_1\text{-C}_5$ alkylene group, optionally hydroxylated or of which one
of the carbon atoms is oxidized into a ketone function,

B represents a nitrogen-containing heterocycle or an amine group
optionally substituted with one or two $\text{C}_1\text{-C}_4$ alkyl groups, on the
20 understanding that, should a non-substituted nitrogen atom be present on
said nitrogen-containing heterocycle, this nitrogen atom is protected by a
different amino-protecting group to the amino-protecting group used for
acid compound VII,

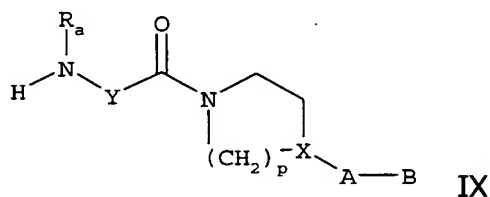
in a solvent, in the presence of activators, at a temperature generally
25 lying between ambient temperature and the boiling point of the solvent,
for approximately 2 to 15 hours, to obtain the amide of formula:



VIII

in which Z_a , R_a , Y , p , X , A and B maintain the same meaning as in the starting compounds,

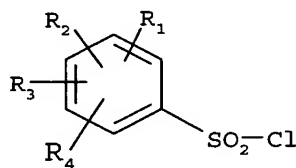
- 5 b) removing the Z_a amino-protecting group to obtain the secondary amine of formula:



IX

- 10 in which R_a , Y , p , X , A and B maintain the same meaning as in the preceding compound,

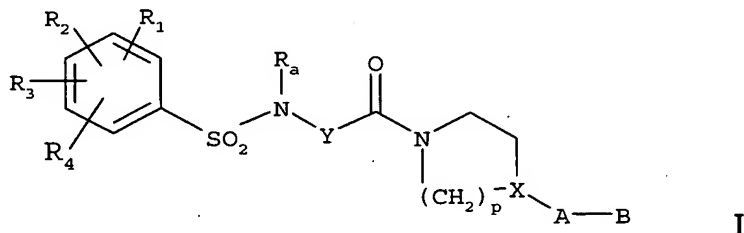
c) allowing this secondary amine IX to react with a benzenesulphonyl chloride of formula:



IV

15 in which R_1 , R_2 , R_3 and R_4 each independently represent a hydrogen or halogen atom, a C_1 - C_3 alkyl group, or a C_1 - C_3 alkoxy group, CF_3 or OCF_3 group,

in a solvent, in the presence of an aprotic organic base, at a temperature between approximately 0 and 50°C, for approximately 1 to 3 hours, to obtain the sulphonamide of formula:



5

in which R_1 , R_2 , R_3 , R_4 , R_a , Y , p , X , A and B maintain the same meaning as in the starting compounds,

d) if necessary, removing the amino-protecting groups,

e) if necessary, obtaining an addition salt of the formula I compound with a mineral or organic acid.

10

7. A therapeutic composition, characterized in that, in association with at least one physiologically acceptable excipient, it contains at least one formula I compound according to any of claims 1 to 3, or one of its pharmaceutically acceptable addition salts with an acid.

15

8. Use of a formula I compound according to any of claims 1 to 3, or of one of its pharmaceutically acceptable addition salts with an acid, for the preparation of a medicinal product intended to treat pain.

20

9. Use of a formula I compound according to any of claims 1 to 3, or of one of its pharmaceutically acceptable addition salts with an acid, for the preparation of a medicinal product intended to treat inflammatory diseases.